### Overall Strategy

#### Reduce H2S Emissions

- Control Area Sources Of H2S
- Reduce Number Of Point Sources Of H2S
- Control Remaining Point Sources Of H2S

#### Reduce VOC Emissions

- Control Area Sources Of VOC
- Reduce Number Of Point Sources Of VOC
- Control Remaining Point Sources Of VOC

Focus on Bridgeport and Petrolia Areas

### **Key Production Facilities**

Neweli

Robins

**Johnson** 

Boyd

Wiliey (Will Be Combined With The Boyd)

J. B. Lewis (Will Be Combined With The Boyd)

Westall

**Cummins** 

## Possible Current Area Sources Of H2S And VOC

Separated Water Overflow In-Ground Pits
Robins Disposal Well In-Ground Pit
Johnson Non-Enclosed In-Ground
Cistern

Piping / Valving Components

## Possible Current Point Sources Of H2S And VOC

#### Wellhead Vents

- if Flare Unlit
- Upon Sulfa Treat Bed Breakthrough

Receiver / Gunbarrel Tanks Oil

Storage And Sales Tanks

Separated Water Tanks

- Injection Surge Tanks
- Heated Water Tanks

Oil Truck Loading

### Past Efforts To Control Emissions At Producing Wells

Install Barrel Flares

If Insufficient Gas to Sustain Barrel Flare

- Install SulfaTreat Drum (Past 3 Years)

Install Barrel Flares with Solar Powered Igniters (Last 12 Months)

Deliver Casing Head Gas via Gathering System to Central Barrel Flare

- Newell Lease-2004 (19 Wells)
- C. L. Lewis Lease 2005 ( 9 Wells)
- Robins Lease-2005 (5 Wells)

# Past Efforts To Control Emissions At Production Facilities

### Connect Tank Vents With Fiberglass Pipe

- Deliver Vapors To Central Barrel Flare
- Newell Facility 2003
- Robins Facility 2005

Attempt To Reduce Use Of Separated Water Overflow Pits

## Installed Vapor Collection Hose At Truck Loading Facility

- Newell Facility 2004
- Robins Facility 2005

## Ongoing Efforts To Control Emissions At Producing Wells

### Connect Well Casing Heads To Flow Lines

- Remove Any Barrel Flares And Sulfa Treat Drums
- Deliver Gas To Production Facility To Be Destroyed At Central Flare
- Barrel Flare Initially-Then Elevated Flare

25 Wells Converted as of Sept. 29, 2006

- 91 Wells Converted as of Oct. 23, 2006

Expect to have 100 Wells Completed By October 31,2006.

Expect to have 350 Wells Completed By January 31,2007.

### Ongoing Efforts to Control Emissions at Production Facilities

Installing Vapor Collection Systems At Remaining Production Facilities in Bridgeport and Petrolia Areas - Deliver Vapors to Central Flare

- Cummins Completed As Of Sept. 29, 2006
- Temporary Connections Of Tank Vents Using PVC Pipe Completed At Johnson, Boyd and Westall - Completed As Of Oct. 23, 2006
- Using Barrel Flare Temporarily
- Permanent Connections At Johnson And Boyd Will Use Fiberglass Pipe
  - Expect to have Johnson Completed By November 30, 2006
  - Expect to have Westall Completed By February 28, 2007
  - Expect to have Boyd Completed By March 31, 2007 As Facility is Rebuilt

### Ongoing Efforts to Control Emissions at Production Facilities

Install Elevated Flares (Est. 40' to 50') at Each Production Facility in Bridgeport and Petrolia Areas

- Gas Testing And Dispersion Modeling
   Estimated Completion Date Nov. 30, 2006

   Flares Will Be Installed At Newell, Robins And Johnson Estimated Completion Date
   February 28, 2007
- Boyd, Cummins and Westall Flares Estimated Completion Date March 31, 2007

Replace Produced Water Transfer Pump And In-Ground Cistern At Johnson Facility

- Estimated Completion Date Nov. 30, 2006
   Replace Thief Hatches On All Tanks (81)
   At Key Facilities
  - Expect to Be Completed by February 28, 2007
  - 20 Completed As Of Oct. 23, 2006

### Ongoing Efforts To Control Emissions At Production Facilities (Cont)

## Install Vapor Collection Hoses At Each Loading Facility

- Hose Will Be Connected To Main Vapor Collection System
- Vapors Will Be Destroyed At Central Flare
  - Barrel Flare Initially Then Elevated Flare
  - Boyd Completed
  - Expect to have Johnson, Cummins and Westall Completed By October 31, 2006
    - All Three Completed As Of Oct. 23, 2006

### Consolidate Willey, J.B. Lewis And Boyd Facilities - Rebuild Boyd

- Install Pipeline To Tie Flowlines Together
- Install 4 Separators
- Replace 8 Tanks
- Estimated Completion Date March 31, 2007

### Ongoing Efforts To Control Emissions At Production Facilities (Cont)

- Install Covers And Vapor Recovery On Separated Water Overflow Pits In Bridgeport And Petrolia Areas
  - Have Already Met With Two Potential Suppliers - as of Sept. 29, 2006
  - Expect to Select Supplier By October 15, 2006
     Selected Layfietd Group (CW Neal)
  - Expect to Have Newell Pit Cover Installed By December 31, 2006
  - Installation Difficult December Thru February
  - Expect to Have Robins Pit Covers (2) Installed By March 31, 2007.
  - Expect to Have Boyd.Pit Cover Installed By April 30, 2007.
  - Expect To Have Johnson Pit Cover And Two Covers At Westall Pits Installed By May 31, 2007.
  - Vapor Recovery Line Will Be Connected To Vapor Collection System
  - Vapors Will Be Destroyed At Elevated Flare
     Response Plan of PennTex Resources Illinois, Inc. and Rex Energy Operating Corp.

Attachment lo AIP of PennTex Resources Illinois, Inc., Rex Energy Operating Corp. and U.S. EPA

### Ongoing Efforts To Control Emissions At Production Facilities (Cont)

### Install Electric "Kill System"

- Shut Down Portions Of The Field Automatically
- Minimize Overflow Of Water To Pits
- May Make Pit Covers Unnecessary
- Will Test Radio Controlled System To Shut Down Transformer Banks That Control Wells Feeding The Newell Facility. Expected Completion Date January 30, 2007
- If Successful Will Implement At Robbins And Johnson Facilities Expected Completion Date March 31,2007
- Implement At Boyd Expected Completion Date April 30, 2007

# Newell Production Facility Current Sources And Control Status

#### **Associated Wellheads**

- Current (September 1, 2006) Barrel Flares And/Or Sulfa Treat Units To Control Produced Gas
- By January 31, 2007: Tie-in Produced Gas Into Oil Production Stream And Shutdown/Remove Barrel Flares And/Or Sulfa Treat Units

### Gunbarrel, Oil, Separated Water Tanks

- Current (September 1, 2006): Vented To A Barrel Flare
- By February 28, 2007: Vent To An Installed Elevated Flare

### Oil Truck Loading

- Current (September 1, 2006): Vapor Return Line To Sales Oil Tanks, No Valve At The End Of The Hose, Recent Enforcement Of Use Of Hose
- Vapor Return Line To Sales Oil Tanks, Valve At The End Of The Hose, Continued Enforced Hose Use (Completed As Of Sept. 29, 2006)

Response Plan of PennTex Resources Illinois, Inc. and Rex Energy Operating Corp. Attachment to AIP of PennTex Resources Illinois, Inc., Rex Energy Operating Corp. and U.S. EPA

# Newell Production Facility Current Sources And Control Status

### Water Transfer Pumps

- Current (September 1, 2006): Relatively New Enclosed Tank/Pump System
- Future: Continued Use Of Enclosed Tank/Pump System

### Separated Water In-Ground Pit

- Current (September 1, 2006): Open To Atmosphere And Periodically Used
- By December 31, 2006: Install Non-permeable Cover And Collect/Vent Vapors To The Flare

### Piping / Valving Components

- Current (September 1, 2006): Workday Audio/Visuai/Olfactory (AVO) Monitoring
- Future: Continued Workday AVO Monitoring

### Install Electric Kill System

- By January 31, 2007

# Robins Production Facility Current Sources And Control Status

#### Associated Wellheads

- Current (September 1, 2006): Barrel Flares And/Or Sulfa Treat Units To Control Produced Gas
- By January 31, 2007: Tie-in Produced Gas Into Oil Production Stream And Shutdown/Remove Barrel Flares And/Or Sulfa Treat Units

#### Gunbarrel, Oil, Separated/Heated Water Tanks

- Current (September 1, 2006): Vented To A Barrel Flare
- By February 28, 2007: Vent To An installed Elevated Flare

#### Oi! Truck Loading

- Current (September 1, 2006): Vapor Return Line To Sales Oil Tanks, No Valve At The End Of The Hose, Recent Enforcement Of Use Of Hose
- Vapor Return Line To Sales Oil Tanks, Valve At. The End Of The Hose, Continued Enforced Hose Use (Completed as of September 29, 2006)

# Robins Production Facility Current Sources And Control Status

### Water Transfer Pumps

- Current (September 1, 2006): Relatively New Enclosed Tank/Pump System
- Future: Continued Use Of Enclosed Tank/Pump System

### Separated Water And Disposal In-Ground Pits

- Current (September 1, 2006): Open To Atmosphere And Periodically Used
- By March 31, 2007: Install Non-permeable Covers And Collect/Vent Vapors To The Flare

### Piping / Valving Components

- Current (September 1, 2006): Workday Audio/Visual/Olfactory (AVO) Monitoring
- Future: Continued Workday AVO Monitoring

### Install Electric Kill System

By March 31, 2007

• fi

# Johnson Production Facility Current Sources And Control Status

#### Associated Wellheads

- Current (September 1, 2006): Barrel Flares And/Or Sulfa Treat Units To Control Produced Gas
- By January 31, 2007: Tie-in Produced Gas Into Oil Production Stream And Shutdown/Remove Barrel Flares And/Or Sulfa Treat Units

### Gunbarrel, Oil, Separated Water Tanks

- Current (September 1, 2006): Vented To Atmosphere
- By September 30, 2006 : Temporarily Vent To An Installed Barrel Flare - Completed
- By February 28, 2007: Vent To An Installed Elevated Flare

### Oil Truck Loading

- Current (September 1, 2006): Vented To Atmosphere
- By September 30, 2006: Install Vapor Return Line To Sales Oil Tanks, Valve At The End Of The Hose, Enforced Hose Use - Completed

Response Plan of PennTex Resources Illinois, Inc. and Rex Energy Operating Corp. Attachment to AIP of PennTex Resources Illinois, Inc., Rex Energy Operating Corp. and U.S. EPA

# Johnson Production Facility Current Sources And Control Status

### Water Transfer Pumps

- Current (September 1, 2006): Non-enclosed Cistern/Pump System
- By November 30, 2006: Install Enclosed Tank/Pump System

### Separated Water In-Ground Pit

- Current (September 1, 2006): Open To Atmosphere And Periodically Used
- By May 31, 2007: Install Non-permeable Cover And Collect/Vent Vapors To The Flare

### Piping / Valving Components

- Current (September 1, 2006): Workday Audio/Visual/Olfactory (AVO) Monitoring
- Future: Continued Workday AVO Monitoring

### Install Electric Kill System

By March 31, 2007

# Boyd Production Facility Current Sources And Control Status

#### Associated Wellheads

- Current (September 1, 2006): Barrel Flares And/Or Suifa Treat Units To Control Produced Gas
- By Jan. 31, 2007: Tie-in Produced Gas Into Oil Production Stream And Shutdown/Remove Barrel Flares And/Or Suifa Treat Units

### Gunbarrel, Oil, Separated/Heated Water Tanks

- Current (September 1, 2006): Vented To Atmosphere
- By Sept. 30, 2006 Temporarily Vented To An Installed Barrel Flare - Completed
- By March 31, 2007: Vent To An Installed Elevated Flare

#### Oil Truck Loading

- Current (September 1, 2006): Vented To Atmosphere
- By Sept. 30, 2006: Install Vapor Return Line To Sales Oil Tanks, Valve At The End Of The Hose, Enforced Hose Use - Completed

Response Plan of PennTex Resources Illinois, Inc. and Rex Energy Operating Corp. Attachment to AIP of PennTex Resources Illinois, inc., Rex Energy Operating Corp. and U.S. EPA

# Boyd Production Facility Current Sources And Control Status

### Water Transfer Pumps

- Current (September 1, 2006): Relatively New Enclosed Tank/Pump System
- Future: Continued Use Of Enclosed Tank/Pump System

### Separated Water And Disposal In-Ground Pits

- Current (September 1, 2006): Open To Atmosphere And Periodically Used
- By April 30, 2007: Install Non-permeable Cover And Collect/Vent Vapors To The Flare

### Piping / Valving Components

- Current (September 1, 2006): Workday Audio/Visual/Olfactory (AVO) Monitoring
- Future: Continued Workday AVO Monitoring

### Install Electric Kill System

- By April 30, 2007

Response Pianof PennTex Resources Illinois, Inc. and Rex Energy Operating Corp.

# Willey And J. B. Lewis Production Facilities Current Sources and Control Status

#### **All Sources**

- Current (September 1, 2006): Uncontrolled
- By March 31, 2007: Tie-in Production Streams
   To The Boyd Tank Battery And Shutdown This Tank Battery

# Westall Production Facility Current Sources And Control Status

#### Associated Wellheads

- Current (September 1, 2006): Barrel Flares
   And/Or Sulfa Treat Units To Control Produced
   Gas
- Within 3 Months: Tie-in Produced Gas Into Oil Production Stream And Shutdown/Remove Barrel Flares And/Or Sulfa Treat Units

### Gunbarrel, Oil, Separated/Heated Water Tanks

- Current (September 1, 2006): Vented To Atmosphere
- By October 31, 2006 Vent To An Installed
   Barrel Flare Completed as of Oct. 23, 2006
- By March 31, 2007: Vent To An Installed Elevated Flare

# Westall Production Facility Current Sources And Control Status

### Oil Truck Loading

- Current (September 1, 2006): Vented To Atmosphere
- By October 31, 2006: Install Vapor Return Line To Sales Oil Tanks, Valve At The End Of The Hose, Enforced Hose Use - Completed as of Oct. 23,2006

### Separated Water And Disposal In-Ground Pits

- Current (September 1, 2006): Open To Atmosphere And Periodically Used
- By May 31, 2007: Install Non-permeable Cover And Collect/Vent Vapors To The Flare

### Piping / Valving Components

- Current (September 1, 2006): Workday Audio/Visual/Olfactory (AVO) Monitoring
- Future: Continued Workday AVO Monitoring

# Cummins Production Facility Current Sources And Control Status

#### **Associated Wellheads**

- Current (September 1, 2006): Barrel Flares
   And/Or Sulfa Treat Units To Control Produced
   Gas
- By January 31, 2007: Tie-in Produced Gas Into Oil Production Stream And Shutdown/Remove Barrel Flares And/Or Sulfa Treat Units

### Gunbarrel, Oil, Separated Water Tanks

- Current (September 1, 2006): Vented To Atmosphere
- By September 30, 2006 Vent To An Installed Barrel Flare - Completed As Of Sept.29, 2006
- By March 31, 2007: Vent To An Installed Flevated Flare

Response Plan of PennTex Resources Illinois, Inc. and Rex Energy Operating Corp.

# Cummins Production Facility Current Sources And Control Status

### Oil Truck Loading

- Current (September 1, 2006): Vented To Atmosphere
- By October 31, 2006: Install Vapor Return Line To Sales Oil Tanks, Valve At The End Of The Hose, Enforced Hose Use - Completed as of Oct. 23, 2006

### Piping / Valving Components

- Current (September 1, 2006): Workday Audio/Visual/Olfactory (AVO) Monitoring
- Future: Continued Workday AVO Monitoring